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ABSTRACT

First through twelfth graders' beliefs concerning the social distances between people differing by race, sex, or race and sex were assessed. Sexual social distances are larger for boys than for girls, increase during pre-adolescence, and decrease during adolescence. Racial social distances are larger for blacks than for whites, and increase with age. Across grades, blacks attribute relatively greater social distance to racial than to sexual differences, whereas until high school, whites ascribe relatively greater distance to sex than race. By the third grade, children of both sexes and races believe that sexual social distance is smaller between blacks than whites, and by the fifth grade, believe there is less racial distance among females than males. Subjects at all grade levels believe social distances are largest when race and sex vary simultaneously. The results are discussed in relation to socialization theory and American acculturation patterns. (Author)

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The Development of Normative Racial and Sexual Social Distance Beliefs

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Abstract

First through twelfth graders' beliefs concerning the social distances between people differing by race, sex, or race and sex were assessed. Sexual social distances are larger for boys than for girls, increase during pre-adolescence and decrease during adolescence. Racial social distances are larger for blacks than for whites, and increase with age. Across grades, blacks attribute relatively greater social distance to racial than to sexual differences, whereas until high school whites ascribe relatively greater distance to sex than race. By the third grade, children of both sexes and races believe that sexual social distance is smaller between blacks than whites, and by the fifth grade believe there is less racial distance among females than males. Subjects at all grade levels believe social distances are largest when race and sex vary simultaneously. The results are discussed in relation to socialization theory and American acculturation patterns.

The Development of Normative Racial and Sexual Social Distance Beliefs[1,2]

Sandra Koslin, Bertram Koslin, Richard Pargament, and Henry Bird

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In a series of classic studies, Bogardus (1925, 1933) demonstrated the existence of shared in-group norms for evaluating the social distance of various out-groups. His method was straightforward. First he found that people, regardless of their own group affiliations, more or less agreed on what constituted a high to low degree of intimacy in social interaction. Secondly, he showed that there was a great deal of inter-subject agreement among in-group members concerning what degree of intimate interactions they would accept with various out-groups. Thus he concluded that each group holds other groups at varying degrees of social distance from itself: some are barely tolerated in the in-group's peripheral territory, whereas others have more acceptance in intimate social territory, such as the family. Bogardus type social distance scales have been widely used during the past 40 years to assess group prejudice (e.g., Karlins, Coffman, & Walters, 1969).

The present paper is concerned with the development of social distance beliefs during elementary and secondary school years. However, the concept and measurement of social distance

in the research reported here differ in several respects from those used by Bogardus. In the present study we are concerned with the measurement of those distances which result from the social distinctions made between people along such dimensions as race and sex. The use of such dimensions to make distinctions between people is a nearly universal phenomenon. It is reflected even in such fundamental social institutions as language, e.g., the seemingly universal familiar-formal grammatical distinctions which people make in addressing and responding to one another by role and status and in terms of affect (Brown, 1965).

Whereas Bogardus elicited individual ratings concerning the acceptability of various types of social contact, in the present study subjects make judgments concerning the similarity between people who differ in socially important dimensions. Specifically, they are asked to judge the similarity of stimuli which vary by race, by sex, or by race and sex simultaneously. It is assumed that in making these judgments the subject transforms the distinctions he has learned to draw between people into geometric distances between stimuli. Thus if X is a white male, Y a white female, and Z a black male, the distances between X and Y, X and Z, and Y and Z should reflect the social distinctions which a subject believes our culture makes between white and black males and females. Therefore we will assume that the smaller the

distance between two stimuli, the less the social distance between the people represented.

The rater's reports of social distance are distinguished from his personal attitudes by eliciting two sets of ratings. In one set, the rater judges the degree of similarity between stimuli of varying race and sex characteristics. These judgments are assumed to represent his beliefs concerning the distinctions our society draws between people as a function of these socially significant dimensions. In a second set, he rates the degree of similarity between himself and the stimuli. These judgments are assumed to reflect how he personally feels about these distinctions. The former ratings serve as measures of normative social distances (beliefs), while the latter are measures of personal social distances (attitudes). This paper is concerned only with developmental changes in normative social distances; the development of personal social distances will be the subject of a separate article.

Normative social distance. The dimensions along which people are distinguished and the extent of such differentiations may vary between groups and cultures (see Sherif, 1936; Brown, 1965). Although some groups in the United States may draw certain distinctions between people that other groups do not draw, considerable research allows us to assume that everyone after a given age makes distinctions by sex because of the universality of the dimension and by race because of the

importance of the dimension in American society. This common understanding of the dimensions along which distinctions are made between people provides a shared referential structure for social behavior.

Social learning theory (e.g., Sherif & Sherif, 1956) assumes that social distance is not "natural" or innate, but rather is learned in the course of socialization. As children gradually become group members and "understand" that group norms are prescriptive standards, they acquire beliefs concerning the normative distances ascribed by their adult culture to people differing in socially defined ways. As they increasingly relate to the several groups to which they belong (e.g., family, age mates, etc.), children become aware of the standards which define who they are and how they are expected to act toward those who are and are not members of the same groups. By the time they reach high school, students' beliefs concerning social distance should approximate those of the adult community. Since the learning of socially relevant distinctions between people occurs developmentally, the quantification of the extent of the differences between people must also be a developmental phenomenon.

A number of previous investigations have examined the emergence of children's awareness and preferences with respect to such dimensional concepts as sex (e.g., Kohlberg, 1966; Hartup and Zook, 1960; Kagan, 1964) and race (Goodman, 1964;

Stevenson & Stewart, 1958; Clark & Clark, 1958; Porter, 1971). However, there has been no prior research tracing developmental changes in either the direction or the extent of differences between people regarding the social distances attributed to sex or to race. The purpose of the present research, therefore, is to study the development of these normative social distances between the first and twelfth grades for children of both sexes and races.

Major questions to be investigated. Dominant trends in the socialization process in our society give rise to a number of expectations concerning how normative distances are likely to vary along the race and sex dimensions.

It is well known that patterns of interaction between the sexes change in the United States (probably as a function of socialization processes) as children pass from early childhood to adolescence. Whereas the preschool child plays comfortably with peers of either sex, beginning at or shortly after the time of entering first grade, children increasingly associate mainly with same-sex peers. Strong sex-linked interests and activities emerge during the elementary school years, until the preadolescent child spends his social hours largely in sex-segregated friendship and play groups. Around adolescence, however, group and individual encounters and experiment with members of the opposite sex begin and grow increasingly important. In light of these changing patterns

of social interaction between the sexes, there is reason to expect that the normative social distance attributed to sex would increase during middle childhood and decrease at adolescence.

Observational studies of socialization processes lead us to expect that normative distance would vary between subgroups around the main trends for age. For example, boys and girls should differ concerning the amount of social distance between the sexes. The developmental mores in our society are such that boys might be expected to attach greater distance to sex than girls do. During the elementary school years, boys face embarrassment and social humiliation from their peers if they are found in the company of girls or are discovered playing "girls' games," whereas peer sanctions applied to girls who play with boys are milder, i.e., it is socially more acceptable for a girl to be considered a tomboy than it is for a boy to be considered a sissy.

With respect to the social significance of race differences, observation of the dominant socialization patterns in our culture suggests that race increasingly functions as a determinant of social interaction as children get older. Racial awareness in both black and white children first appears at about three years of age and, increasing rapidly during the next few years, is quite well established by the time of school entry. The bulk of research evidence concerning the

development of racial attitudes during middle childhood and adolescence points toward increased prejudice with age (Proshansky, 1968). As children learn the social mores governing interracial relations, they demonstrate a greater proportion of same-race peer preferences and attribute more negative characteristics to members of the other race. As age increases, whites also show greater distance from blacks on traditional social distance scales. Thus, developmental trends in interracial attitudes would lead us to expect an increase in the normative distance attributed to race as children get older.

Moreover, blacks and whites may ascribe different amounts of distance to race. As members of a minority group which is responded to in a discriminatory manner on the basis of skin color, blacks could be expected to believe that a great deal of distance in fact exists between the races. In view of current assertions by blacks that whites falsely minimize the social distance between the races and counterassertions by whites that blacks falsely exaggerate racial distance, we might expect that blacks would attribute greater social distance than whites to race differences between people. Furthermore, since racial awareness emerges early, we would expect that blacks from the first grade would ascribe more distance to race than whites.

Because of the interactions between the sexes and races

(some of which are commonly referred to as "battles" and "confrontations") we would expect that subject groups would know a great deal about one another's beliefs. That is, we might expect that girls and boys would know each other's beliefs concerning race and that blacks and whites would know each other's beliefs concerning sex. Therefore, in the present study, in addition to examining the main developmental trends and the subgroup differences in normative social distances, we shall also determine whether boys and girls and blacks and whites at different ages show in their judgments knowledge of each other's beliefs concerning racial and sexual social distances. If we turn to the empirical literature we should be able to infer the differences in social distance beliefs between the races concerning sex and between the sexes concerning race which children learn during socialization.

The empirical reviews of the literature on race relations (e.g., Vander Zanden, 1966) suggest that (despite recent black social movements protesting the demasculinization of black males) the social distance ascribed to sex would be expected to be less among blacks than among whites. Furthermore, since the distance ascribed to sex between blacks is determined in large measure by the interracial mores which affect social interaction, we could expect that the judgments of both races would reflect the differences between the sexual social distance beliefs of whites and blacks. The belief that sexual

social distance is a less important way to distinguish among blacks than among whites is illustrated by many current practices which have been imposed by our society over decades. For example, the differences in the level of skill and income of occupations typically held by men and women is not nearly as great between blacks as it is between whites. Similarly, the differences between the sexes concerning family role and status are larger and more consistent among whites than blacks. If these empirical observations are correct and blacks do not, in fact, attribute as much distance to sex as whites, are both blacks and whites aware of this difference between the races concerning sex distances, how early does this shared understanding emerge, and how does it change developmentally?

The literature on interracial relations reports multiple actual and stereotypic differences between black and white males and between black and white females. There are two reasons to expect that these differences would result in greater social distance between black and white women than between black and white men. First, in our society women more than men are charged with the responsibility for socializing children. Therefore, they might be expected to model and teach racial discrimination (including mores concerning racial interactions between the sexes) more than men. If this is true, more racial social distance would be expected between the females than the males of different races. Secondly, in

our society, women are expected both to display (e.g., in dress, speech, shopping patterns, public activities, etc.) and to transmit beliefs concerning social status to the young to a much greater extent than men. Consequently, the difference in social status between blacks and whites in our culture should result in larger mean distances between black and white women than between black and white men.

Since black and white girls are being socialized to the role of the female adult in black and white culture, respectively, we would expect that the normative distance between opposite-race female target figures would be larger than that between opposite-race male target figures. If subjects do, in fact, ascribe greater distance to female than to male figures of opposite race, when does this awareness of different racial distance between the sexes emerge and how does it develop?

Because no prior research has systematically dealt with these issues, the purpose of the present work has been to gather the basic empirical data needed to describe accurately the main trends and sources of group variability in the development of sexual and racial social distances.

Method

Subjects. White and black boys and girls (N = 4656) in grades 1 through 12 served as subjects. About 25% of the sample was black, and all subjects attended racially desegregated

schools in the suburbs of a major Northeastern city.[4] From census tract data, it was determined that most subjects were drawn from the middle class.

Measure of social distances. A new measure, the People Test, was devised to study the development of race and sex social distances. The theoretical rationale of the measure rests on the assumption that it is possible to infer the cognitive-affective interpersonal distinctions and social distances in which a subject believes from how close together he clusters drawings of people. The technique is derived principally from judgment theory (Torgerson, 1958), though it may appear to bear some superficial resemblance to Kuethe's (1962) work with social schemata.

Subjects make similarity judgments concerning social stimuli which are represented by simple line sketches of children who vary by race and sex (i.e., white girls, white boys, black girls, and black boys). A raceless and sexless stick figure, used as a representation of the self, completes the set of stimuli. These figures are organized as a randomly ordered series of paired comparisons, in each of which one stimulus figure is printed on the page in a permanent position, while the second figure is printed on a pressure sensitive label which can be detached by the student and pasted onto the page. Subjects are instructed that the more alike the two figures are, the closer together they are to be pasted.

Thus figures which are alike are pasted close together, whereas figures that are not alike are pasted far apart (on a line drawn horizontally across the page).

To assess normative social distance, subjects make similarity judgments between all pairs of generalized others (excluding the self). To assess personal distance, the subject makes similarity judgments between himself and the generalized others. It is assumed that these self-other judgments reflect more affect than the judgments between pairs of stimuli representing generalized others. For example, other things being equal, if a nine year old boy believes he is more similar to boys than to girls, he would be expected to place the self figure closer to male than to female target figures. Depending on the correspondence between his beliefs and attitudes (i.e., the relationship between his judgments of normative and personal social distance), he would place the self figure closer to, at the same distance from, or further away from female target figures than he would place a generalized male figure of the same race as himself.

In the present study, three age-appropriate versions of the People Test, spanning equal intervals from grade 1-12, were used. The three versions were identical except for the ages of the stimulus figures portrayed, which corresponded to the ages of subjects taking the test. Four random sequences for presentation of the stimuli were used to minimize possible

order effects; these sequences were held constant over the three age-appropriate versions.

Procedure. Subjects were tested in their regular classrooms[5] by specially trained administrators. Testers included white and black women and men, who were randomly assigned to classrooms. At the beginning of the testing session, subjects were told that there were no right or wrong answers, that their teachers would not see their papers, and that their school grades would not be affected by the results. Students were not required to complete the test if they objected on grounds of privacy, but only two instances of such refusal to participate were recorded.

Scoring. A subject's score for any comparison was the distance (to the nearest centimeter) placed between the centers of the heads of the two target figures. The minimum score possible for any comparison was three centimeters and the maximum score possible was 24 centimeters. In computing group means for each comparison, data were collapsed across the four random orders.

Prior to analysis of the data, inter-stimulus distances were analyzed to locate students who had perseverated in their responses to the test comparisons. The criteria used to eliminate response perseverators were based on the assumption that since the comparisons were randomized, the magnitude of the subject's distance judgments should vary randomly. The

response scale was divided into four equal quadrants and the distances for the first and second, second and third, etc. comparisons were examined. Subjects were classified as perseverators if the distances of pairs of successive comparisons were either (a) located in different quadrants fewer than three times or (b) alternated between any two quadrants at least eight of the nine possible times. Essentially, these criteria reject the hypothesis of random order in the magnitude of a subject's judgments (Siegel, 1956).

Since the perseverators were proportionately distributed by sex, race, and grade, their data were deleted in order to reduce error variance in the analyses. Eleven percent of the students tested were deleted from analyses for this reason.

Results

Since subjects taking the test and stimuli in the test booklet share the same characteristics (both are white or black and male or female), the reporting of distances attributed by various groups of subjects to the different target figure comparisons could easily become confusing. To keep the presentation as clear and concise as possible, a set of uniform designations will be employed throughout.

Stimulus figures will be designated by initials, as follows: BB (black boy), WB (white boy), BG (black girl) and WG (white girl). Test items will be referred to as comparisons, and will be designated by the two stimulus figures

therein, e.g., BB-WB refers to the comparison in which a distance judgment is made between the figure of a black boy and the figure of a white boy, etc.

Comparisons in which stimulus figures differ only by race (WG-BG, WB-BB) will be called race comparisons; comparisons in which target figures differ only by sex (WG-WB, BG-BB) will be called sex comparisons; and those in which stimulus figures differ simultaneously by race and by sex (WG-BB, BG-WB) will be called race-sex comparisons.

Subjects will be referred to as blacks, whites, boys, and girls. The results (scores) will be called distances. Since the People Test's instructions require the subject to use the response scale to reflect the comparative alikeness of stimuli varying by sex versus race versus race-sex, the data are ordinal, reflecting larger or smaller distance judgments between and within subjects.

Sequence and types of analyses. The data were analyzed in a series of four-way mixed model analyses of variance using unweighted means solutions for unequal N (Winer, 1962). Each analysis had three between subjects factors: race of subjects, sex of subjects, and grade of subjects (twelve levels). The analyses differed from each other with respect to which comparisons (a within subjects factor) constituted the dependent data.

Each analysis was based on the data of all subjects for

whom there were scores on all levels of the within subjects factor for that analysis. Due to missing data for some subjects on some comparisons, there is slight variation in N across analyses.

The analyses were carried out hierarchically. First, to gain an overview of the developmental trends, an analysis was carried out in which the dependent data were the distances for all (six) normative comparisons. This analysis was used to determine relationships among the race, sex, and race-sex distances for different groups of subjects across grades. Following this, separate analyses of the data for the race, sex, and race-sex comparisons, respectively, were run to permit more detailed study of the development of distances attributed to the two comparisons constituting each type.

Developmental relationships among all comparisons. The means for the six normative distances are presented in Table 1,

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Insert Table 1 about here

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where they have been grouped into three comparison types for clarity. There is a significant main effect for comparisons, (F = 916.28, 5/∞ df, $p < .01$)[6] indicating that subjects respond differentially across the comparisons. The mean of the two race-sex distances ($\bar{X}$ = 16.9) is much larger than the mean of the two race distances ($\bar{X}$ = 8.8), which is, in turn,

slightly larger than the mean of the two sex distances ($\bar{X}$ = 8.5).

There is a significant interaction between comparisons and grades (F = 9.03, 55/∞ df, p < .01). In Figure 1 the distances

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for the six comparisons have been averaged for clarity of presentation to obtain mean values for race, sex, and race-sex, and have been plotted for grades 1-12. It can be seen that at every age level there is a large difference between the size of the race-sex distances and the size of the distances for either race alone or sex alone. While race-sex distances are always clearly the largest, there are changes over grade in the relative size of the sex and race distances. In grades 1-4 sex distances are larger than race distances. Over grades, the race distances increase and the sex distances decrease, so that in grades 9-12 the race distances are larger than the sex distances.

Race of the subject does not have an independent effect (F = 1.51, 1/∞ df, n.s.), but does interact with comparisons (F = 30.85, 5/∞ df, p < .01). As can be seen in Figure 2,

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blacks attribute greater distance to the race than to the sex

comparisons, whereas whites attribute greater distance to sex than to race. Both blacks and whites give the largest distance to the race-sex comparisons. Distances on race comparisons are larger for blacks than for whites, whereas on sex and race-sex comparisons whites use the larger distances.

Figure 3 shows the means for the race, sex, and race-sex

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Insert Figure 3 about here

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comparisons plotted over grades separately for blacks and for whites. It can be seen that following grade 8 there is a greater increase in race distances and a greater decrease in sex distances for blacks than for whites. Consequently, while both blacks and whites attribute greater distance to race than to sex in grades 10-12, the difference between the race and sex distances is larger for blacks than for whites. Moreover, Figure 3 shows that for blacks race distances are larger than sex distances in every grade except the first, whereas for whites sex distances are larger than race distances through grade 9.

Like race, sex of subjects has no independent effect on distances (F = 3.54, 1/∞ df, n.s.) but does interact significantly with comparisons (F = 3.61, 5/∞ df, $p < .01$). As seen in Figure 4, there is little difference between the

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sexes on either the race comparisons or the race-sex comparisons. However, on sex comparisons boys clearly use larger distances than girls.

Overall, as indicated in Table 1, boys attribute slightly larger distances to sex than to race, whereas girls attribute more distance to race than to sex. However, a triple interaction between sex, grade, and comparisons ($F = 1.47$, $55/\infty$ df, $p < .05$) reflects the fact that it is only in grades 1-4 that there is any appreciable difference between boys and girls in the amount of distance attributed to the race and sex comparisons. It can be seen in Table 2 that in grades 1-4 boys

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ascribe greater distance to the sex than to the race comparisons, whereas girls attribute about equal distance to the two kinds of comparisons. During grades 5-9 both boys and girls ascribe approximately equal amounts of distance to the race and sex comparisons, and beginning in grade 10 both sexes give greater distance to the race than to the sex comparisons.

Distances for race comparisons. Normative race distances vary significantly over grades, showing a gradual increase as subjects get older ($F = 14.83$, $11/\infty$ df, $p < .01$). Table 3 shows

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(as we saw in Figure 1) that the race distances are smallest in the early elementary grades and largest during the high school years.

Racial distances vary significantly by subject race (F = 47.20, 1/∞ df, $p < .01$), and by subject race in interaction with subject sex (F = 4.23, 1/∞ df, $p < .05$). It can be seen in Table 3 that blacks attribute larger distances than whites to the race comparisons. The race by sex interaction occurs because among blacks, girls ($\bar{X}$ = 10.1) have larger race distances than boys ($\bar{X}$ = 9.8), whereas among whites, boys ($\bar{X}$ = 8.6) have larger race distances than girls ($\bar{X}$ = 8.2). Thus the largest race distances are those used by black girls, while the smallest are those used by white girls.

A significant main effect for comparisons indicates that WB-BB and WG-BG are not accorded equal amounts of distance (F = 6.22, 1/∞ df, $p < .05$). As Table 3 indicates, greater interracial distance is attributed to female target figures who differ in race (WG-BG) than to male target figures who differ in race (WB-BB). Moreover, the significant interaction between grade and comparisons (F = 2.39, 11/∞ df, $p < .01$), plotted in Figure 5, reflects the fact that the differential

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distance accorded to female as compared with male targets of

opposite race becomes stable after grade 4. In grades 1-4, there are only small and inconsistent differences between the distances attributed to WB-BB and to WG-BG; beginning in grade 5, however, WG-BG is always larger than WB-BB.

The means (Table 3) for the two race comparisons reveal that boys as well as girls, and blacks as well as whites, place greater distance between WG-BG than between WB-BB. The insignificant interactions for race by comparisons ($\underline{F}$ = 1.46, 1/∞ $\underline{df}$, n.s.) and sex by comparisons ($\underline{F}$ = 3.37, 1/∞ $\underline{df}$, n.s.) show that there is no disagreement between boys and girls and blacks and whites concerning normative racial distances between males and females.

However, marginally significant triple interactions for race by grade by comparisons ($\underline{F}$ = 1.89, 11/∞ $\underline{df}$, $\underline{p} < .05$) and for sex by grade by comparisons ($\underline{F}$ = 2.23, 11/∞ $\underline{df}$, $\underline{p} < .05$) are obtained because WG-BG emerges as larger than WB-BB somewhat later for blacks than for whites and somewhat later for girls than for boys. Whites in all grades attribute larger distances to WG-BG than to WB-BB (except in grade 2, where the distances are equal), but blacks do not consistently do so until grade 5. And, whereas boys consistently attribute greater distance to WG-BG than to WB-BB throughout the age range studied, girls do not begin to do so until grade 4.

In summary, the normative social distance attributed to race is larger for blacks than for whites and increases

with age. From at least the fifth grade on, subjects of both races and both sexes concur that there is greater social distance **between** females than between males who differ in race.

Distances for sex comparisons. Normative sex distances vary significantly over grades (F = 6.33, 11/∞ df, $p < .01$). The means presented in Table 5 show that the trend of sex distances between grade 1 and grade 12 is downward, but that there is an increase during the intermediate grades. The decrease in normative sex distances is sharpest around the time of high school entry (between grade 9 and grade 10).

Sex distances vary according to subjects' race (F = 29.33, 1/∞ df, $p < .01$) and sex (F = 12.15, 1/∞ df, $p < .01$). It may be seen in Table 4 that whites attribute greater normative

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distance than blacks to sex comparisons, and that boys attribute greater normative distance than girls. Moreover, there is a subject sex by grade interaction for the normative sex distances (F = 2.19, 11/∞ df, $p < .05$). Examination of Table 4 reveals that boys' sex distances are far larger than girls' in the early grades but not thereafter. Moreover, girls use markedly larger distances in the intermediate grades than they do in the early elementary grades, whereas distances for

boys are more constant. Thus the mean increase in sex distances during the intermediate grades is due primarily to the increased sex distances of the girls.

The race of the target figures affects judgments of sex distances, since the two comparisons (WG-WB, BG-BB) are not accorded equal distances ($F = 53.55$, $1/\infty$ df, $p < .01$). As seen in Figure 6, greater distance is placed between the

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white target figures (WG-WB) than between the black target figures (BG-BB). A marginally significant interaction between grade and comparisons ($F = 2.18, 11/\infty$ df, $p < .05$) results because the direction of the difference between the comparisons is reversed in the first grade.

It can be seen in Table 4 that the difference between the races with respect to normative sex distances (i.e., the greater distance between whites of opposite sex than between blacks of opposite sex) is recognized by blacks and whites and by both sexes, since all groups attribute greater distance to WG-WB than to BG-BB. This agreement across groups concerning the different distances accorded to sex by black and white people emerges by the third grade. The insignificant sex distance interactions for race by comparisons ($F < 1$, $1/\infty$ df, n.s.) and for sex by comparisons ($F = 2.07$, $1/\infty$ df, n.s.)

further supports the conclusion that there is no disagreement between boys and girls and between blacks and whites concerning how the normative sexual distance between black stimuli compares with that between white stimuli.

In summary, sex distances are larger for boys than for girls and, following a spurt during the preadolescent years, decline as students get older. Whites attribute greater normative distance to sex than blacks do. By third grade blacks and whites and boys and girls agree that there is greater distance between opposite sex figures who are white than between opposite sex figures who are black.

Distances for race-sex comparisons. Means for the race-sex comparisons are presented in Table 5. The distances

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attributed to race-sex vary significantly over grades (F = 8.43, 11/∞ df, $p < .01$), increasing between the first and fourth grades, decreasing from grade five until grade eight and showing no systematic change thereafter. Subjects' race also affects judgments of race-sex distances (F = 11.72, 1/∞ df, $p < .01$). As Figure 7 indicates, whites assign larger

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distances than blacks to the race-sex comparisons.

The two race-sex comparisons (BG-WB and WG-BB) are not accorded equivalant distances (F = 31.40, 1/∞ df, p < .01). It can be seen in Table 5 that larger distances are ascribed to BG-WB than WG-BB. However, while subjects of both races concur that there is greater distance between BG-WB than between WG-BB, the magnitude of the difference between the two distances is smaller for whites than for blacks, resulting in a significant interaction between race and comparisons (F = 12.51, 1/∞ df, p < .01). Blacks judge the WG-BB distance to be nearly a full centimeter smaller than the WB-BG distance, whereas whites judge the distances to be almost equal.

There are changes over grade with respect to which comparison receives the larger distances, leading to a significant grades by comparisons (F = 3.09, 11/∞ df, p < .01) interaction. Figure 7 shows that whereas BG-WB generally takes the larger distances in the early and late grades, WG-BB takes the larger distances between grades five and seven.

Finally, though boys and girls agree that the distance between WB-BG is larger than that between WG-BB (Table 6), in grades 9, 10, and 11 there is a much wider spread for boys than for girls between the distances attributed to the two comparisons, leading to a significant triple interaction between sex, grade and comparisons (F = 2.20, 11/∞ df, p < .05).

In summary, race-sex distances peak at the fourth grade,

and are larger for whites than for blacks. Across grades, subjects place greater distance between BG-WB than between WG-BB, except in the middle grades where WG-BB takes the larger distances.

Discussion

It has been our purpose in the present study to investigate the development of the normative social distance beliefs ascribed to race and sex during the school years. While it has been widely assumed in the literature that such distances are learned in the course of socialization, their development had not previously been studied. Our purpose, therefore, was to uncover the main developmental trends in the socialization of race and sex distances, as well as to inquire about group differences around those main trends for subjects of both races and sexes.

To assess beliefs concerning the normative distances attributed to race and sex, a new technique (the People Test) was developed. According to the attitude measure classification proposed by Campbell (1950), the People Test would be considered a quasi-structured and quasi-disguised test. The test assumes that the social distinctions which subjects have learned to make between people can be transformed into metric distances according to the degree of alikeness between stimuli. The degree of structure in the test is limited, since no cues

are provided regarding what determines alikeness, thereby forcing the subject to rely on his own internal standards in making judgments. Some test disguise is achieved by presenting the test as a cognitive task (see the Method section) rather than as a test of people's beliefs or attitudes.

Whenever an individual's attitudes and/or beliefs are made salient, subjects may become anxious about revealing them in their behaviors. The People Test's cognitive disguise was employed to minimize the likelihood that students would distort their responses in order to avoid revealing their attitudes toward the persons depicted in the stimuli. Of course, despite the disguise, the possibility remains that some students may conclude that their attitudes are being measured, and may therefore attempt to alter their responses. However, the simplest (and thus most probable) rules for faking the test would result in the subject being deleted by the perseverator criteria. Following, for example, either the dictum, "In order not to reveal anything, I'll put everything in the same place" or the rule "I'll place the pictures on all the odd pages in one quadrant and the pictures on all the even pages in another quadrant," would result in the subject being classified as a perseverator. Thus a subject probably would be deleted from analyses if he used simple rules in order to avoid taking the test seriously.

While it is theoretically possible for subjects to fake

the People Test in such a way that they would pass the perseveration criteria, it is not likely that this would actually happen. In order to fake the test successfully, subjects would need to derive a complex rule such as: Consistently put a black and a white person as close together as (or closer together than) two black or two white people, being careful to put same sex figures nearer to each other than opposite sex figures." It seems unreasonable to expect many students to derive and consistently follow such a complex rule, especially since only 10-15 minutes were required for everyone to finish the test.

Thus because of the properties of the People Test as a quasi-disguised and quasi-structured measure of attitudes and beliefs, and because of the mechanisms employed to delete subjects who, for any of several reasons, do not generate a random pattern of responses to correspond with the random presentation of the stimulus pairs, we can be fairly confident that the reported data represent accurately the comparative normative social distance beliefs of students.

In the discussion which follows, we will first consider results pertaining to children's socialization to sexual social distances, and will then take up their socialization to racial and racial-sexual social distances.

Socialization of normative sexual social distance beliefs. The results of the present study show that sex distances develop

differently for boys and for girls. Sex distances are larger for boys than they are for girls, especially during the early elementary grades. During this time, moreover, boys attribute greater distance to sex than to race, whereas girls do not. This pattern of socialization of sexual social distance is in accord with known adult and peer group influences on the differentiation of social sex roles in our culture (Ausubel, 1954).

Almost from the time that a child is born, adults provide differential training and reinforcements to prepare girls and boys for the social sex roles they will occupy. Because of the relative value placed by the culture on maleness and femaleness, boys learn to disdain the female sex role and, though girls may complain about the disrespect shown to them by boys, they tend to believe the prevailing view of their inferiority. Consequently, whereas boys reject girls' activities and seldom (if ever) desire to change sex, girls frequently express envy for activities which are permitted to boys but denied to them, and wish that they were boys. Because of the differential valuing of maleness, association with same-sex peers and avoidance of association with members of the opposite sex is much more clearly a requirement for peer acceptance among boys than it is among girls.

The results of this study indicate that children's beliefs concerning sexual social distance increase from middle

childhood to preadolescence and then decrease during adolescence. These findings correspond to known social interaction patterns between the sexes. There is a strong tendency for children in our culture to engage in a voluntary segregation by sex during the years of middle childhood and preadolescence. This tendency is manifested in extreme sex-typing of games and activities, and in numerous expressions of indifference, dislike, and rivalry with respect to members of the opposite sex. While sociometric studies indicate that there are some cross-sex choices in the primary grades, by preadolescence there are almost none. However, when adolescence is reached the composition of peer groups changes. In contrast to preadolescent groups, adolescent peer groups generally have heterosexual membership and engage in activities suitable for both sexes. This change in peer interactions is mirrored in increased sociometric choice of members of the opposite sex during junior and senior high school. Thus the socialization of sexual social distance beliefs found in the present study is consonant with the known course of development of male and female sex roles in our culture and with the developmental changes in the degree of same-sex and opposite-sex associations.

Socialization of racial social distance beliefs. The socialization of racial distance beliefs differs for blacks and for whites. Blacks believe there are larger race distances than whites, and also ascribe comparatively greater

distance to race than to sex differences, especially as they get older. Black children's belief that there is greater normative distance between the races is consistent with their elders' contention that ours is a racist society and that whites do not acknowledge the full extent of the racism. Since blacks are responded to in a discriminatory manner on the basis of skin color from a very early age, and since they are treated as blacks regardless of their sex, it should not be surprising that they believe that greater social distance emanates from racial than from sexual distinctions between people. While whites eventually (after grade 9) also attribute greater distance to race than to sex distances between people, they do not do so to the same extent as blacks.

Racial social distance increases for members of both races as subjects get older, especially at adolescence. This is consistent with reported patterns of separation along racial lines as children mature. Though children as young as nursery school age can recognize skin color differences, preschool children show little cleavage along racial lines in their peer groups. But, whereas peer relations tend to be informal in mixed racial play-groups in the elementary school, as students approach puberty their relations with other race peers become more formal, and friendship groups increasingly cleave along racial lines.

It is not surprising that the socialization process

should result in greater racial distances for older than for younger children. With increased age, children become more aware of the social consequences of race in terms of status differences between black and white adults and with respect to the range of jobs occupied by blacks and whites. They also become more aware of the numerous racial tensions and divisions in American society. Whether they are black or white, they are increasingly aware of black separatism, and if they are black they may be socialized to the movement. Moreover, by the time they are in high school, achievement tracking (which tends to be correlated with race) reaches its peak, and the social implications of this tracking in terms of implied competence, jobs, and social status are apparent to students, especially to blacks, who typically occupy the educationally, socially, and economically disadvantaged position.

The results also show that from a surprisingly early age children have differentiated beliefs concerning the way in which the racial distance between people of opposite race depends on the sex of those persons. The results of the analysis of distances for the two race comparisons (a within subjects factor, requiring that subjects use internal standards to judge the distance between black and white males compared with that between black and white females) indicate that at all grade levels tested, whites ascribe greater distance to

females than to males who differ in race, and that blacks begin to do so consistently in the fifth grade. Girls display awareness of the difference between the sexes regarding race distances somewhat later (grade 4) than boys, who attribute the larger interracial distances to females at all grade levels tested.

These findings of greater normative distance between females of opposite race than between males are consonant with reviews of the empirical literature on interracial contacts in desegregated settings (e.g., Carithers, 1970), which suggest that there is a greater degree of social association between white and black boys than between white and black girls. They reflect the process whereby children learn that the socialization to the female role in our culture carries with it responsibility for the transmission of norms (including norms of racial discrimination) and for displays of social status to a greater degree than does the male role, and hence come to believe that larger racial social distances exist between girls than between boys.

Analysis of the socialization of normative distance beliefs for blacks and whites also revealed that blacks ascribe less distance than whites to sex differences between people. Because of historical and contemporaneous patterns of racial discrimination, sex role distinctions are not as marked among blacks as they are among whites. Black men and women differ

less in the type of work they do than whites, and family roles and status also differ less between blacks than between whites. Since the ways in which whites are treated and the roles which they perform are heavily dependent upon their sex, whereas this is true to a much more limited extent for blacks, it seems reasonable that blacks should conclude that sex distinctions are not as important among blacks as they are among whites.

It is especially interesting to learn that all subject groups, regardless of their race or sex, are aware (believe) that sexual distances are smaller among blacks than among whites. Analysis of the two sex comparisons (a within subjects factor) showed that blacks and whites as well as boys and girls believe that there is less sex distance between black boys and girls than there is between white boys and girls. This belief that there is greater sexual distance between whites than between blacks emerges for all subjects by the third grade and is stable thereafter.

Of the various distances assessed, those for race-sex are the most difficult to interpret because they contain both the race and the sex dimensions simultaneously.[7] Comparison of the shape of the developmental curves (Figure 1) for race-sex distances with those for race and for sex distances suggests that the race-sex data are more heavily influenced by the sex than by the race component. However, it is clear in

Figure 1 that the simultaneous variation of the stimuli by race as well as sex markedly increases the size of the distances over those obtained for sex alone. In view of the strong historical proscription against miscegenation in our culture, it is hardly surprising that the race-sex distances are larger than the distances for the sex (or race) comparisons. Furthermore, since the proscriptions against interracial heterosexual contacts have historically been promulgated chiefly by the majority white society, it is not surprising that whites ascribe larger social distance than blacks to race-sex differences between people.

One unexpected and puzzling finding concerns the pattern of relative social distance attributed by blacks and by whites to the two race-sex comparisons, one involving a white female and black male and the other involving a black female and white male. For both blacks and whites, the comparison involving the black girl receives the larger distances. These results are rather surprising in relation to the two most likely patterns of beliefs which might have been predicted.

First, because of the important role of females as carriers of the culture, one expected socialization pattern would be for each group to ascribe greater distance to the comparison involving the female of its own group. However, this result is not found consistently (though it is true for blacks in all but two grades, it is true for whites only in four

grades). Alternatively, since the social penalties for sexual contacts between black males and white females have historically been more severe than for those between white males and black females, we might expect that students would come to believe that there is greater social distance between white girls and black boys than between white boys and black girls. Yet this was found to be true only in the first and fifth through seventh grades. Moreover, the fact that both blacks and whites tend to reverse the relative size of the distances for the two comparisons between the fifth and seventh grades suggests that the change at that time is not random. While these results may reflect changing socialization patterns, such as increased black pride and increased acceptance among young people of interracial dating, they nevertheless remain something of a puzzle.

Summary. The results of the present study reflect representative socialization patterns for middle class children attending desegregated schools in majority white communities in the metropolitan North. As such, the findings probably characterize a large segment of the public school population. However, we should not conclude that they represent the only pattern in our society or that they are inevitable, since variation in any of a number of factors could be expected to result in a somewhat different course of development.

For example, regional differences probably affect normative

distance beliefs. In a middle-states city with some strong southern mores it was found (Koslin, et al., 1972), in contrast to the findings in the present study, that among third graders race distances were larger than sex distances. Furthermore, school policies may, within limits, affect children's beliefs concerning normative distances. Research (Koslin, et al., 1972) has shown that normative social distance is smaller in schools with racially balanced than in those with racially unbalanced classes, when balance is defined as the condition where minority students are evenly assigned to the available classes within their grade. Finally, reviews of the literature on inter-group relations (e.g., Vander Zanden, 1966) suggest that other factors such as personality variables and social class background may also influence the development of social distance beliefs. Thus, while the present paper provides baseline data for an important modal socialization pattern, much remains to be learner about the variations in social distance beliefs associated with regional, school, and personality factors.

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Footnotes

[1] An abbreviated version of this paper was presented at the meetings of the American Psychological Association, Washington, D.C., September, 1971.

[2] This research has been supported by Grant #HD03961 from the National Institute of Child Health and Human Development, and under a contract with the New York State Education Department.

[3] Institute address: 80 West End Avenue, New York, N.Y. 10023.

[4] Data for grades 2-12 were collected in one school district; scheduling problems made it necessary to sample first graders in a geographically neighboring district where racial, SES, and other demographic characteristics were known to be comparable.

[5] Scheduling constraints required that some students in grades 10-12 be tested in the library.

[6] Because of the large number of degrees of freedom in the denominator, the row for infinity is used in entering the *F* table.

[7] We should note, however, that the inclusion of the race-sex comparisons in the test serves two useful purposes. First, because these comparisons consistently take the largest normative distances, they help to anchor the response scale

at the far ("not alike") end, thereby helping to insure that the race comparisons and the sex comparisons will occupy the middle part of the scale, where there is greatest room for variation. Secondly, the race-sex comparisons are needed in order to carry out multi-dimensional scaling analyses of the data to determine whether subjects have responded in terms of the race and sex dimensions built into the figures. Whenever such multidimensional scaling analyses have been applied to People Test data, the two dimensions built into the figures have consistently been recovered.

TABLE 1

Mean Normative Distances for all Comparisons

Variable	Comparisons								
	Race			Sex			Race-Sex		
Grade	WB-BB	WG-BG	$\bar{X}$	WB-WG	BB-BG	$\bar{X}$	BG-WB	WG-BB	$\bar{X}$
1	8.5	8.1	8.3	8.9	9.8	9.3	14.0	14.2	14.1
2	8.0	8.1	8.1	8.4	8.4	8.4	17.6	16.3	16.9
3	7.0	7.4	7.2	8.6	7.8	8.2	18.1	17.4	17.7
4	6.2	6.4	6.3	8.1	7.1	7.6	18.1	17.6	17.9
5	9.7	10.3	10.0	10.4	9.0	9.7	17.6	17.9	17.8
6	9.0	9.4	9.2	9.9	8.6	9.2	17.4	17.6	17.5
7	9.0	9.6	9.3	9.4	8.5	8.9	16.7	16.8	16.7
8	8.0	8.5	8.2	9.4	7.8	8.6	15.4	14.9	15.2
9	9.5	10.2	9.8	10.1	8.3	9.2	16.1	15.9	16.0
10	10.0	10.8	10.4	7.8	5.9	6.8	15.6	14.2	14.9
11	10.7	11.9	11.3	6.4	6.0	6.2	16.2	15.2	15.7
12	10.5	10.9	10.7	8.0	6.7	7.4	16.5	15.5	16.0
Total $\bar{X}$	8.5	9.0	8.8	9.0	8.0	8.5	17.0	16.7	16.9
Subject race									
Black	9.8	10.0	9.9	8.0	7.0	7.5	16.8	15.8	16.3
White	8.2	8.7	8.4	9.2	8.3	8.8	17.1	17.0	17.1
Subject sex									
Boys	8.5	9.2	8.8	9.4	8.7	9.0	17.1	16.8	17.0
Girls	8.6	8.8	8.7	8.5	7.3	7.9	16.9	16.6	16.8

TABLE 2

Mean Normative Race and Sex Distances for Boys and Girls

	Boys			Girls		
Grade	Race	Sex	Difference[a]	Race	Sex	Difference[a]
1	8.6	10.6	- 2.0	8.0	7.8	+ .2
2	8.4	9.1	- .7	7.7	7.7	- -
3	7.4	9.5	- 2.2	7.1	6.7	+ .3
4	6.3	8.5	- 2.2	6.3	6.8	- .5
5	10.0	9.9	- -	10.1	9.5	+ .6
6	9.4	9.3	+ .1	9.1	9.1	- -
7	9.2	8.8	+ .5	9.4	9.1	+ .3
8	8.5	9.0	- .5	8.0	8.2	- .2
9	9.8	9.2	+ .6	9.8	9.2	+ .7
10	10.5	7.7	+ 2.8	10.3	6.2	+ 4.1
11	12.0	6.4	+ 5.7	10.8	6.1	+ 4.7
12	10.0	7.6	+ 2.5	11.1	7.2	+ 4.0

[a] Differences were obtained prior to rounding to tenths.

TABLE 3

Mean Normative Race Distances

	Boys			Girls			Blacks			Whites			All Ss		
Grade	BG-WG	BB-WB	$\bar{X}$	BG-WG	BB-WB	$\bar{X}$	BG-WG	BB-WB	$\bar{X}$	BG-WG	BB-WB	$\bar{X}$	BG-WG	BB-WB	$\bar{X}$
1	8.6	8.7	8.6	7.4	8.7	8.0	6.7	9.4	8.1	8.6	8.4	8.5	8.1	8.7	8.4
2	9.0	7.3	8.1	6.9	8.7	7.8	9.6	9.4	9.5	7.4	7.4	7.4	8.0	7.9	8.0
3	8.1	6.8	7.4	6.8	7.4	7.1	8.7	7.9	8.3	7.0	6.8	6.9	7.5	7.1	7.3
4	6.4	6.5	6.4	6.5	6.0	6.2	7.3	7.7	7.5	6.2	5.8	6.0	6.4	6.2	6.3
5	10.2	9.8	10.0	10.5	9.7	10.1	11.7	11.3	11.5	9.9	9.2	9.5	10.4	9.8	10.1
6	9.8	9.0	9.4	9.2	9.1	9.2	9.8	9.1	9.5	9.4	9.1	9.2	9.5	9.1	9.3
7	9.7	8.8	9.3	9.5	9.2	9.3	11.4	10.4	10.9	9.1	8.6	8.9	9.6	9.0	9.3
8	8.8	8.2	8.5	8.3	7.8	8.0	9.2	9.1	9.2	8.4	7.8	8.1	8.6	8.0	8.3
9	9.9	9.5	9.7	10.3	9.3	9.8	12.6	12.0	12.3	9.8	9.0	9.4	10.1	9.4	9.8
10	10.9	10.4	10.6	10.8	9.6	10.2	13.7	12.7	13.2	10.0	9.1	9.5	10.8	9.9	10.4
11	12.6	11.2	11.9	11.3	10.3	10.8	13.6	11.6	12.6	11.3	10.4	10.9	11.8	10.7	11.2
12	10.1	10.0	10.0	11.5	10.8	11.1	11.9	12.7	12.3	10.4	9.5	10.0	10.9	10.4	10.7
Total $\bar{X}$	9.2	8.5	8.8	8.8	8.6	8.7	10.1	9.8	9.9	8.6	8.2	8.4	9.0	8.6	

TABLE 4

Mean Normative Sex Distances

	Boys			Girls			Blacks			Whites			All Ss		
Grade	BB-BG	WB-WG	$\bar{X}$	BB-BG	WB-WG	$\bar{X}$	BB-BG	WB-WG	$\bar{X}$	BB-BG	WB-WG	$\bar{X}$	BB-BG	WB-WG	$\bar{X}$
1	11.1	10.1	10.6	8.2	7.6	7.9	9.0	8.4	8.7	10.1	9.2	9.6	9.8	9.0	9.4
2	9.3	9.2	9.3	7.4	7.8	7.6	5.8	7.5	6.7	9.3	8.9	9.1	8.4	8.5	8.5
3	9.1	9.5	9.3	6.1	7.3	6.7	6.3	6.5	6.4	8.2	9.2	8.7	7.7	8.5	8.1
4	8.3	8.7	8.5	5.9	7.6	6.8	5.7	6.6	6.1	7.5	8.6	8.1	7.1	8.2	7.6
5	9.2	10.5	9.9	8.8	10.2	9.5	8.2	10.1	9.2	9.3	10.4	9.9	9.0	10.4	9.7
6	8.6	10.0	9.3	8.5	9.7	9.1	7.4	8.7	8.0	8.9	10.3	9.6	8.5	9.9	9.2
7	8.4	9.2	8.8	8.5	9.5	9.0	7.9	8.9	8.4	8.6	9.4	9.0	8.5	9.3	8.9
8	8.1	9.7	8.9	7.4	8.9	8.1	6.8	9.1	7.9	8.0	9.3	8.7	7.8	9.3	8.5
9	8.4	10.3	9.3	8.2	10.1	9.2	5.8	7.8	6.8	8.7	10.6	9.6	8.3	10.2	9.2
10	6.7	8.6	7.7	5.3	7.3	6.3	5.9	6.6	6.2	5.9	8.2	7.0	5.9	7.8	6.8
11	6.1	6.7	6.4	5.8	6.3	6.0	4.7	5.4	5.1	6.2	6.7	6.5	5.9	6.4	6.2
12	6.9	8.3	7.6	6.7	7.8	7.2	6.7	8.5	7.6	6.8	7.8	7.3	6.8	8.0	7.4
Total $\bar{X}$	8.6	9.4	9.0	7.3	8.4	7.9	6.9	8.0	7.4	8.3	9.3	8.8	8.0	8.9	

TABLE 5

Mean Normative Race-Sex Distances

	Boys			Girls			Blacks			Whites			All Ss		
Grade	WG-BB	BG-WB	$\bar{X}$	WG-BB	BG-WB	$\bar{X}$	WG-BB	BG-WB	$\bar{X}$	WG-BB	BG-WB	$\bar{X}$	WG-BB	BG-WB	$\bar{X}$
1	14.3	14.1	14.2	14.1	13.8	14.0	11.8	12.0	11.9	15.1	14.7	14.9	14.2	14.0	14.1
2	16.1	17.7	16.9	16.3	17.5	16.9	14.6	17.1	15.8	16.9	17.8	17.3	16.2	17.6	16.9
3	17.6	18.4	18.0	17.0	17.8	17.4	15.0	17.8	16.4	18.1	18.2	18.1	17.3	18.1	17.7
4	17.8	18.2	18.0	17.5	17.9	17.7	17.0	17.1	17.0	17.9	18.3	18.1	17.7	18.0	17.9
5	18.0	17.6	17.8	17.8	17.8	17.8	17.9	17.5	17.7	17.9	17.7	17.8	17.9	17.6	17.8
6	17.6	17.4	17.5	17.6	17.5	17.5	16.2	17.0	16.6	18.2	17.6	17.9	17.6	17.4	17.5
7	16.8	16.3	16.6	16.6	17.1	16.9	17.2	16.6	16.9	16.6	16.7	16.7	16.8	16.7	16.7
8	15.4	16.0	15.7	14.5	14.8	14.6	14.5	14.8	14.6	15.1	15.6	15.3	15.0	15.4	15.2
9	16.1	16.9	16.5	15.5	15.6	15.6	14.8	18.1	16.4	15.9	15.9	15.9	15.8	16.2	16.0
10	14.3	17.2	15.7	14.1	14.6	14.4	14.3	16.3	15.3	14.2	15.6	14.8	14.2	15.7	14.9
11	14.7	16.2	15.5	15.4	16.1	15.7	14.2	16.0	15.1	15.4	16.2	15.8	15.1	16.1	15.6
12	15.0	15.9	15.5	15.9	17.0	16.4	14.2	16.3	15.3	16.1	16.6	16.3	15.5	16.5	16.0
Total $\bar{X}$	16.8	17.1	17.0	16.5	16.9	16.7	15.8	16.7	16.3	17.0	17.1	17.1	16.7	17.0	

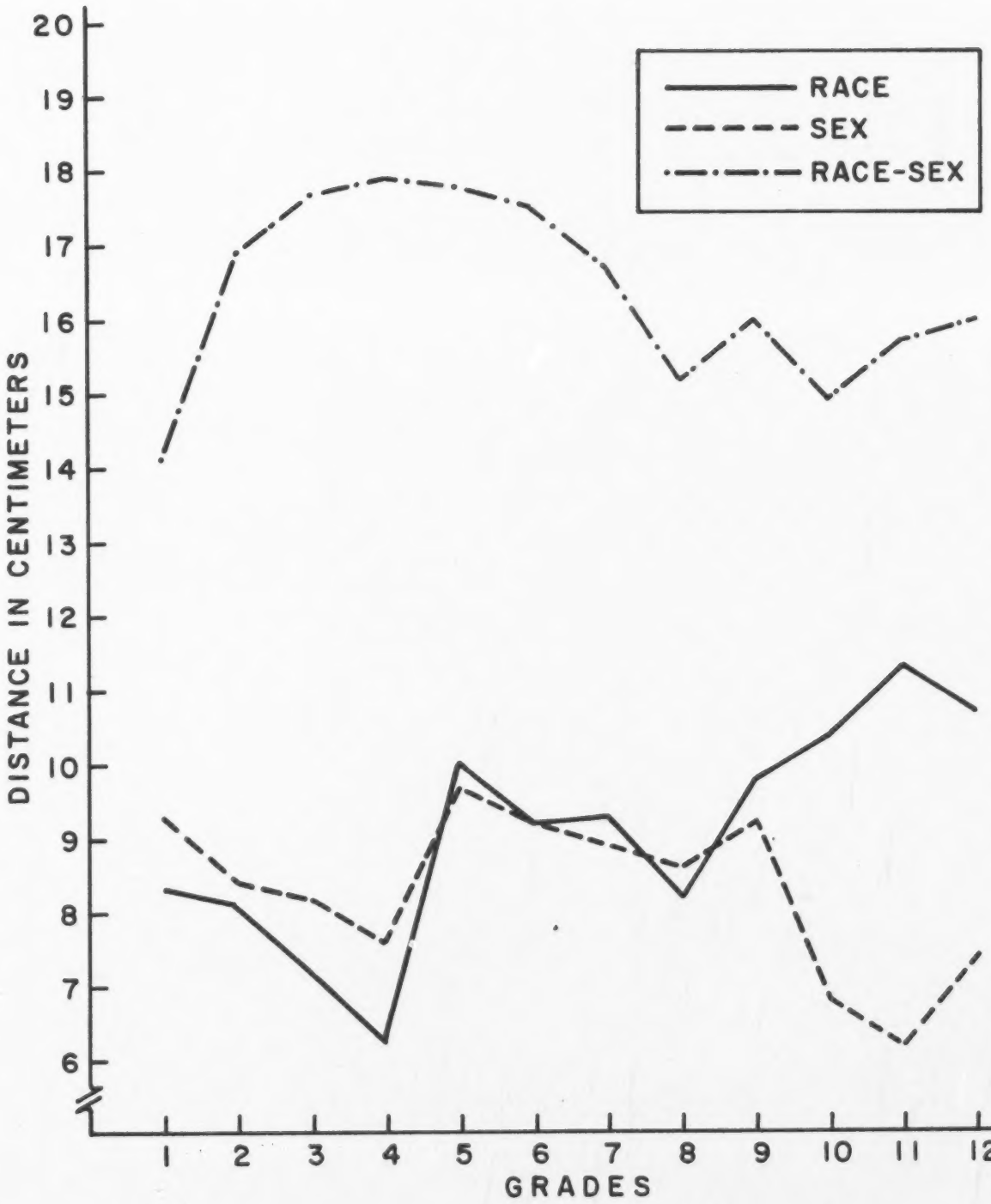

FIG. 1 NORMATIVE DISTANCES OVER GRADES

1-219-5-00-0002

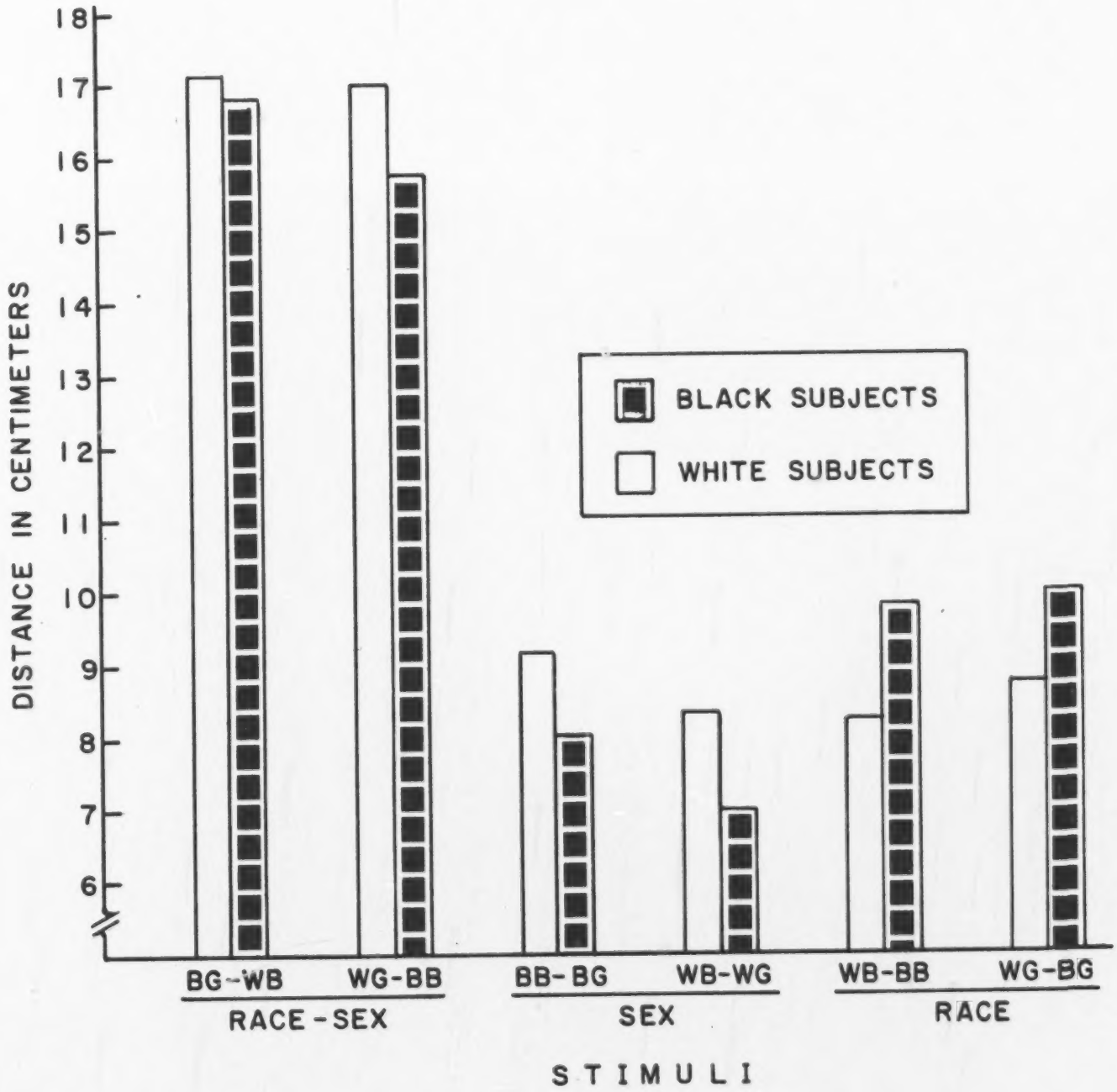

FIG. 2 MEAN DISTANCE BY RACE OF SUBJECT

A-219-5-00-0003

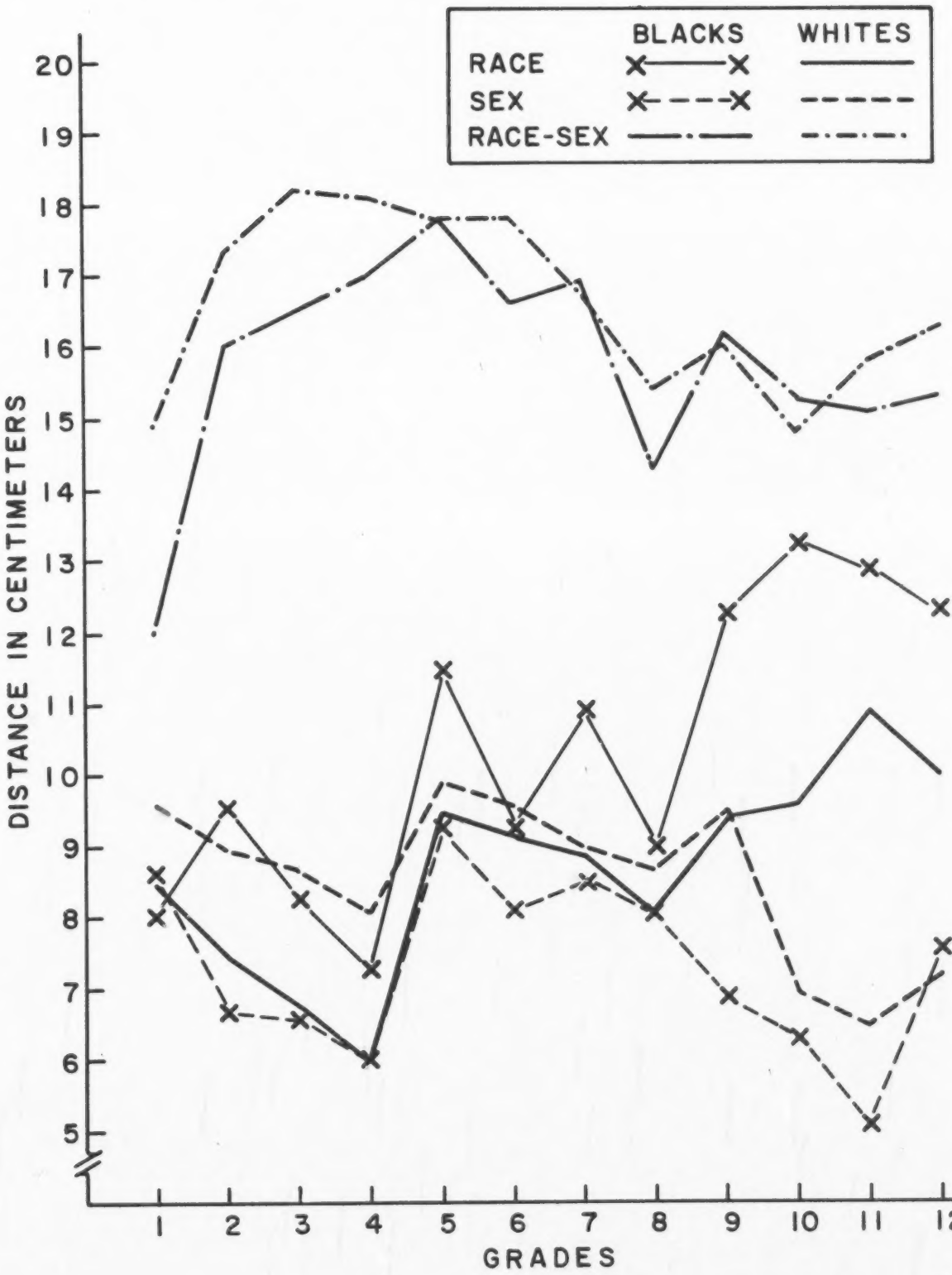

FIG.3 RACE, SEX AND RACE-SEX DISTANCES OVER GRADES FOR BLACK AND WHITE SUBJECTS

A-219-5-00-0004

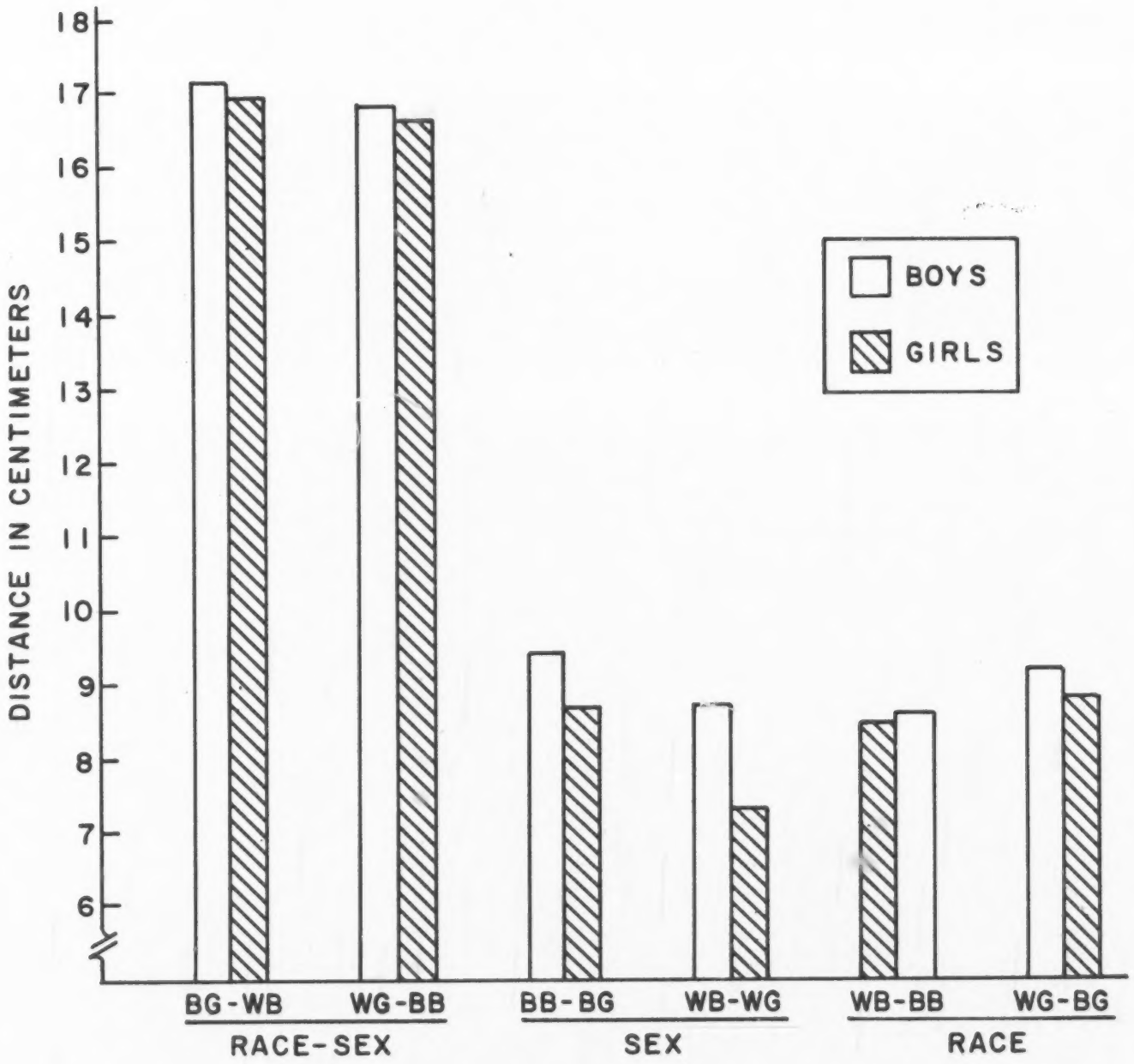

FIG. 4 MEAN DISTANCE BY SEX OF SUBJECT

A-219-5-00-0005

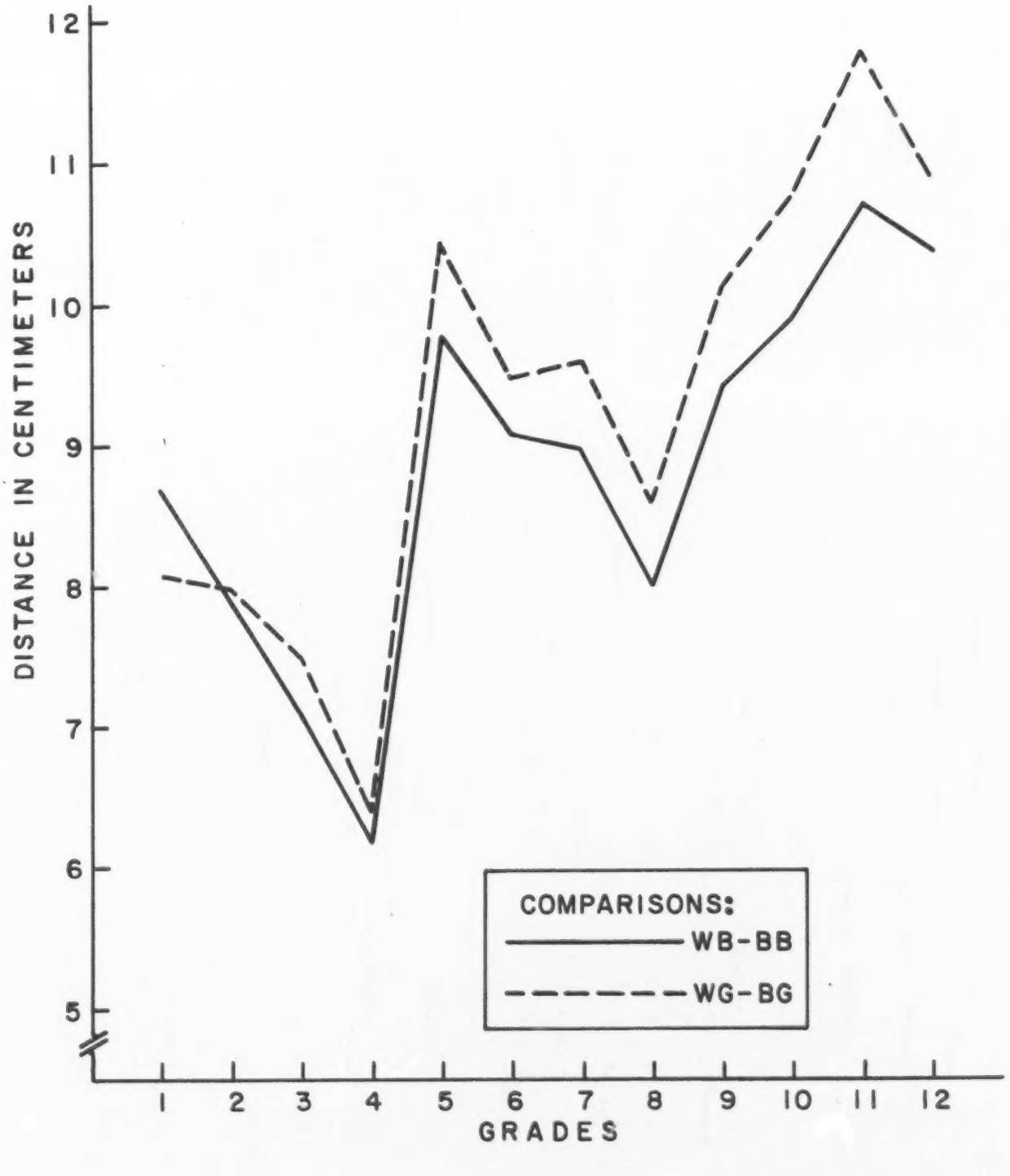

FIG. 5 RACE DISTANCES OVER GRADES

1-219-500-0006

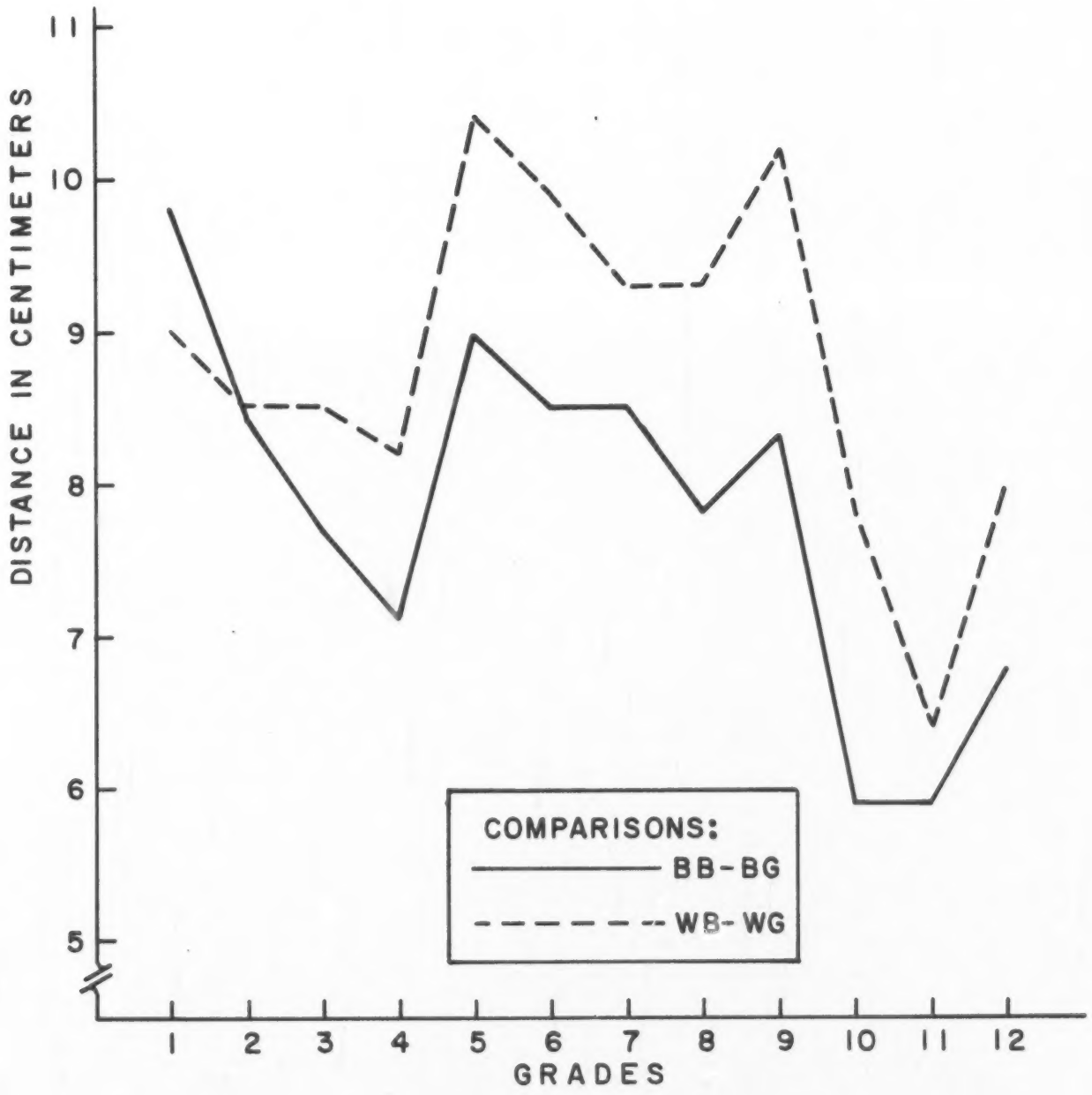

FIG. 6 SEX DISTANCES OVER GRADES

1-219-5-00-0007

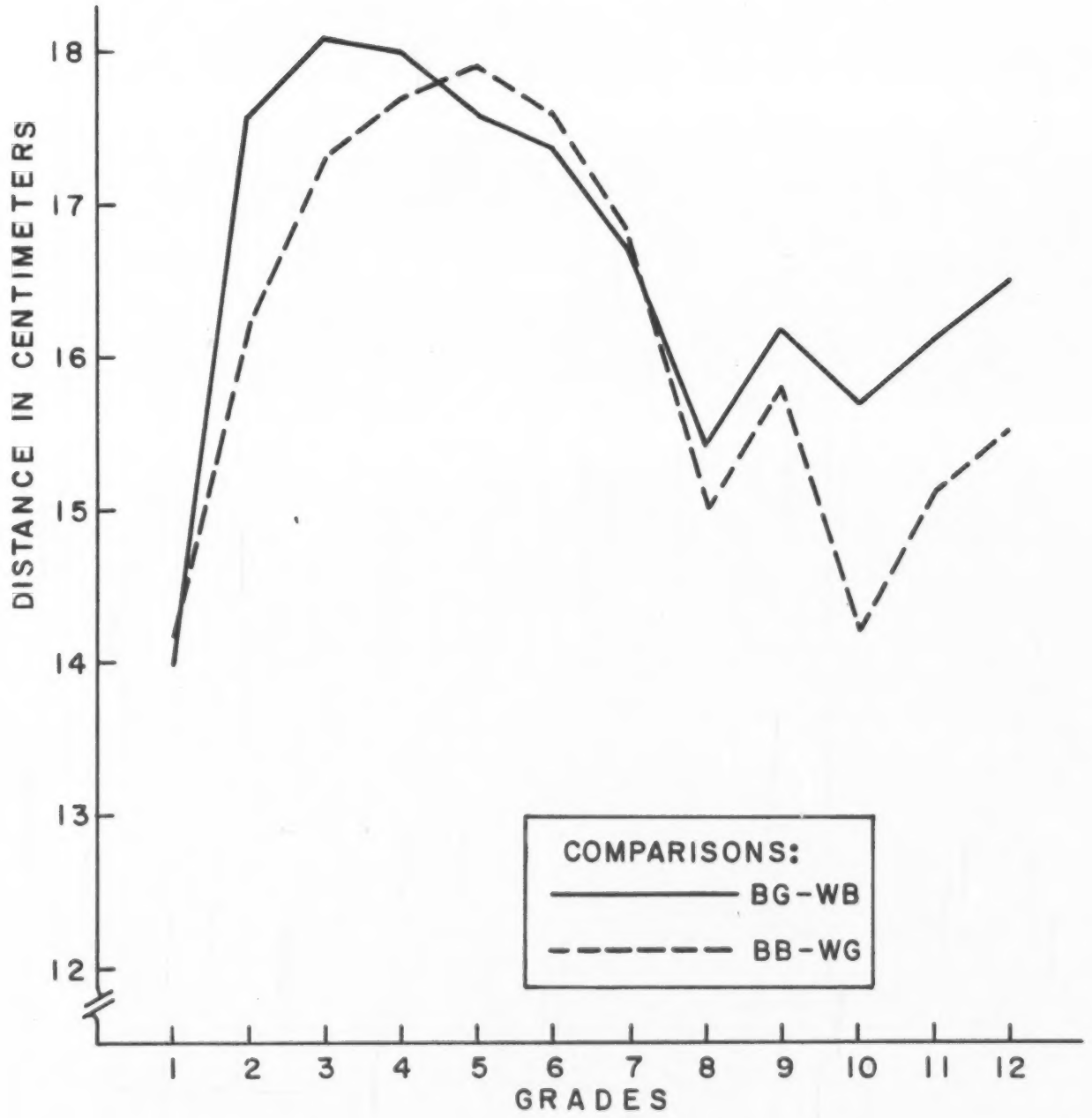

FIG.7 RACE-SEX DISTANCES OVER GRADES

A-219-5-00-0008